Leica iCON
Total Stations
Equipment List

- when it has to be **right**

Leica Geosystems

Table of Contents

Packages for iCON robotic Total Stations 5

1 iCON robot 50 5
1.1 Models 5
1.2 iCR50 Packages with iCON build 5
1.3 iCR50 Packages with iCON site 6
1.4 iCR50 Kits for Machine Control 7

2 iCON robot 60 8
2.1 Models 8
2.2 iCR60 Packages with iCON build 8
2.3 iCR60 Packages with iCON site 9
2.4 iCR60 Kits for Machine Control 10

3 iCON builder 60 11
3.1 Models 11
3.2 iCB60 Packages with iCON build 11

Additional Total Station Options 12

4 iCON robot 50 Options 12

5 iCON robot 60 and iCON builder 60 Options 12

6 iCON robot 60 only Options 12

7 iCON builder 60 only Options 12

Accessories for Total Station 13

8 Communication Handles 13

9 Power Supply 13
9.1 Internal Batteries 13
9.2 External Batteries 13
9.3 Battery Cables 13
9.4 Battery Chargers 13

10 Data Storage and Data Transfer 13
10.1 Memory Devices 13
10.2 Card Reader 14
10.3 Data Transfer Cables 14

11 Optical Accessories 14
11.1 Eyepiece 14
11.2 Autocollimation Set 14
11.3 Objective 14

12 Instrument Height Meter 14

13 Tribrachs 14

14 Tripods 15

15 Reflector Poles 15
15.1 Standard Poles 15
15.2 Hidden Point Pole 15
15.3 Mini Pole 15
15.4 Bi-pods 16

16 Reflectors 16
16.1 Circular Reflectors 16
16.2 360° Reflectors 16
16.3 Precision Reflectors 16
16.4 Mini Reflectors 16
16.5 Reflector Tapes 16

17 Additional Containers 17

Remote Control 18

18 Remote Control 18
18.1 CC55 & CC65/66 Field Controller 18
18.2 CC5x Communication Cap 18
18.3 Remote Control Packages with iCON Software 18

19 iCONstruct Field Software and Applications 19
19.1 iCON build 19
19.2 iCON site 20
19.3 Applications included in iCONstruct Field Software 21
19.4 Optional Applications (not part of iCON site or iCON build) 23
19.5 Applications and Functions included in iCON build plus / iCON site plus 23

Accessories for Remote Control 24

20 Accessories for CC55 iCON Controller 24
20.1 HW Options for CC55 iCON Controller 24
20.2 Accessories for CC55 iCON Controller 24
20.3 Pole Mounts for CC55 iCON Controller 24

21 CC6x iCON Controller and Accessories 24
21.1 HW Options for CC60 iCON Controller 24
21.2 Accessories for CC6x iCON Controller 24
21.3 Pole Mounts for CC6x iCON Controller 24
21.4 TCPS28/TCPS29 Modems 25
21.5 TCPS Accessories 25

Care Packages 26

22 Customer Care Packages 26

Trademarks & Technical Data 27

23 Trademarks 27
24 Technical Data 27

Suggested Equipment Setups 28

25 One-person robotic application 28
26 Machine control application 29
27 Two-person manual Total Station application 30

Packages for iCON robotic Total Stations

1 iCON robot 50

1.1 Models

	iCR52 / iCR55
Angle measurement	●
Distance measurement to prism	●
Distance measurement to any surface (reflectorless)	●
Motorised	●
Automatic Target Aiming	●
PowerSearch (PS)	●
RS232 and CF card interface	●
Bluetooth	●
Hotshoe interface for CommunicationHandle	●
Guide Light (EGL)	●
3D Machine Control ready	●

● Standard

☞ iCR50 instruments can only be ordered as part of a predefined default package. Please refer to the chapters 1.2 and 1.3 for further details.

1.2 iCR50 Packages with iCON build

	iCON robot 50 & iCON build							
	5" CC55 WLAN	**2" CC55 WLAN**	**5" CC55 LRBT**	**2" CC55 LRBT**	**5" CC65 WLAN**	**2" CC65 WLAN**	**5" CC66 LRBT**	**2" CC66 LRBT**
	6006677	6006678	6006679	6006680	6009100	6009101	6009102	6009103
Sensors								
iCR52, iCON robot 52 Total Station 2"		●		●		●		●
iCR55, iCON robot 55 Total Station 5"	●		●		●		●	
CC55, Rugged 3.5" Controller, WEH6.5	●	●	●	●				
CCD3, long-range BT Cap for CC5x			●	●				
CC65, Rugged 7" Tablet PC, Win7					●	●		
CC66, Rugged 7" Tablet PC, Win7 w/ LR BT							●	●
Software								
CSW101, iCON build	●	●	●	●				
CSW201, iCON build					●	●	●	●
CSW600, PowerSearch for iCR50	●	●	●	●	●	●	●	●
CSW601, Reflectorless for iCR50	●	●	●	●	●	●	●	●
Accessories								
CCD1, WLAN CommunicationHandle, black	●	●			●	●		
CCD2, LR-BT CommunicationHandle, black			●	●			●	●
GDF323, Tribrach PRO w/o plummet, black	●	●	●	●	●	●	●	●

	iCON robot 50 & iCON build							
	5" CC55 WLAN	2" CC55 WLAN	5" CC55 LRBT	2" CC55 LRBT	5" CC65 WLAN	2" CC65 WLAN	5" CC66 LRBT	2" CC66 LRBT
GST120-9, Wooden tripod, telescopic	●	●	●	●	●	●	●	●
CRP1, Construction Pole, telescopic	●	●	●	●	●	●	●	●
GSR115, Bi-Pod, for all GLS	●	●	●	●	●	●	●	●
2x GEB221, Battery, Internal, 4Ah, Li-Ion	●	●	●	●	●	●	●	●
GKL211, Charger Li-Ion+User Manual	●	●	●	●	●	●	●	●
MCF256, Compact-Flash card 256 MB	●	●	●	●	●	●	●	●
GVP658, Carry Case for iCON Robot	●	●	●	●	●	●	●	●
GVP657, Carry Case for iCON Accessories	●	●	●	●	●	●	●	●
LABEL "INSTR. LEVELING TIP"	●	●	●	●	●	●	●	●
CMB1, Pole Clamp for CC5x	●	●	●	●				
CMB2, Pole/Vehicle Mount for CC6x					●	●	●	●
CMB5, Pole Clamp for CMB2					●	●	●	●
Documentation								
User Manual iCON build	●	●	●	●	●	●	●	●
Quick Guide iCON robot 50	●	●	●	●	●	●	●	●
Quick Guide iCON CC65/66					●	●	●	●
Leica iCONstruct USB-Card	●	●	●	●	●	●	●	●

● Standard

1.3 iCR50 Packages with iCON site

	iCON robot 50 & iCON site			
	5" CC55 LRBT	2" CC55 LRBT	5" CC66 LRBT	2" CC66 LRBT
	6006685	6006686	6009104	6009105
Sensors				
iCR52, iCON robot 52 Total Station 2"		●		●
iCR55, iCON robot 55 Total Station 5"	●		●	
CC55, Rugged 3.5" Controller, WEH6.5	●	●		
CCD3, long-range BT Cap for CC5x	●	●		
CC66, Rugged 7" Tablet PC, Win7 w/ LR BT			●	●
Software				
CSW102, iCON site	●	●		
CSW202, iCON site			●	●
CSW600, PowerSearch for iCR50	●	●	●	●
CSW601, Reflectorless for iCR50	●	●	●	●
CSW604, MC license for iCR50	●	●	●	●
Accessories				
CCD2, LR-BT CommunicationHandle, black	●	●	●	●
GDF323 Tribrach PRO w/o plummet, black	●	●	●	●
GST120-9, Wooden tripod, telescopic	●	●	●	●

	iCON robot 50 & iCON site			
	5" CC55 LRBT	2" CC55 LRBT	5" CC66 LRBT	2" CC66 LRBT
CRP1, Construction Pole, telescopic	●	●	●	●
GSR115, Bi-Pod, for all GLS	●	●	●	●
2x GEB221, Battery, Internal, 4Ah, Li-Ion	●	●	●	●
GKL211, Charger Li-Ion+User Manual	●	●	●	●
MCF256, CompactFlash card 256MB	●	●	●	●
GVP658, Carry Case for iCON Robot	●	●	●	●
GVP657, Carry Case for iCON Accessories	●	●	●	●
LABEL "INSTR. LEVELING TIP"	●	●	●	●
CMB1, Pole Clamp for CC5x	●	●		
CMB2, Pole/Vehicle Mount for CC6x			●	●
CMB5, Pole Clamp for CMB2			●	●
Documentation				
User Manual iCON site	●	●	●	●
Quick Guide iCON robot 50	●	●	●	●
Quick Guide iCON CC65/66			●	●
Leica iCONstruct USB-Card	●	●	●	●

● Standard

1.4 iCR50 Kits for Machine Control

	Machine Control Kits	
	5"	2"
	6006690	6006689
Sensors		
iCR52, iCON robot 52 Total Station 2"		●
iCR55, iCON robot 55 Total Station 5"	●	
Software		
CSW600, PowerSearch for iCR50 *1	●	●
CSW604, MC license for iCR50	●	●
Accessories		
GDF323, Tribrach PRO w/o plummet, black	●	●
2x GEB221, Battery, Internal, 4Ah, Li-Ion	●	●
GKL211, Charger Li-Ion+User Manual	●	●
MCF256, CompactFlash card 256 MB	●	●
GVP658, Carry Case for iCON Robot	●	●
LABEL "INSTR. LEVELING TIP"	●	●
Documentation		
Quick Guide iCON robot 50	●	●
Leica iCONstruct USB-Card	●	●

● Standard

*1 PowerSearch is only active when coupled with Leica 3D Machine Control

☞ These are recommended default configurations.

☞ iCON robot 50 & iCONstruct Field Software CCPs have to ordered as part of the packages.

☞ For more accessories and options, please refer to chapters 4 and "Accessories for Total Station".

2 iCON robot 60

2.1 Models

	iCR61 / iCR62 / iCR65
Angle measurement	●
Distance measurement to prism	●
Distance measurement to any surface (reflectorless)	●
Motorised	●
Automatic Target Aiming	●
PowerSearch (PS)	●
RS232, SD-Card and USB memory stick interface	●
Internal Bluetooth	●
Hotshoe interface for CommunicationHandle	●
Long-range Bluetooth capable	●
Guide Light (EGL)	●
Laser plummet	●
3D Machine Control ready	●
3.5" colour & touch screen	●
Alphanumeric keyboard	●
iCONstruct start kit on-board software *1	●

● Standard

*1 iCR60 iCONstruct start kit includes Communication and Instrument Settings, Field Calibration, Data Management.

iCR60 instruments can only be ordered as part of a predefined default package. Please refer to the chapters 2.2 and 2.3 for further details.

2.2 iCR60 Packages with iCON build

	iCON robot 60 & iCON build					
	1" CC55 LRBT	2" CC55 LRBT	5" CC55 LRBT	1" CC66 LRBT	2" CC66 LRBT	5" CC66 LRBT
	6006792	6006791	6006790	6006798	6006797	6006796
Sensors						
iCR61, iCON robot 61 Total Station 1"	●			●		
iCR62, iCON robot 62 Total Station 2"		●			●	
iCR65, iCON robot 65 Total Station 5"			●			●
CC55, Rugged 3.5" Controller, WEH6.5	●	●	●			
CCD3, long-range BT Cap for CC50	●	●	●			
CC66, Rugged 7" Tablet PC, Win7 w/ LR BT				●	●	●
Software						
CSW101, iCON build	●	●	●			
CSW201, iCON build				●	●	●
CSW605, PowerSearch for iCR60	●	●	●	●	●	●
CSW606, Reflectorless for iCR60	●	●	●	●	●	●
Accessories						
GDF323, Tribrach PRO w/o plummet, black	●	●	●	●	●	●
GST120-9, Wooden tripod, telescopic	●	●	●	●	●	●
2x GEB222, Li-Ion battery, 7.4V/6Ah, chargeable	●	●	●	●	●	●
GKL211, Charger Li-Ion+User Manual	●	●	●	●	●	●
CCD2, LR-BT CommunicationHandle, black	●	●	●	●	●	●
MSD1000, industrial grade SD memory card 1 GB.	●	●	●	●	●	●
MS1, industrial grade USB memory stick 1 GB	●	●	●	●	●	●
GEV223, data cable USB to mini-USB, 1.8 m	●	●	●	●	●	●

	iCON robot 60 & iCON build					
	1" CC55 LRBT	2" CC55 LRBT	5" CC55 LRBT	1" CC66 LRBT	2" CC66 LRBT	5" CC66 LRBT
MPR122, 360° Reflector PRO	●	●	●	●	●	●
CRP1, Construction Pole, telescopic	●	●	●	●	●	●
GSR115, Bi-Pod, for all GLS	●	●	●	●	●	●
CMB1, Pole Clamp for CC50	●	●	●			
CMB2, Pole/Vehicle Mount for CC60/61				●	●	●
CMB5, Pole Clamp for CMB2				●	●	●
GVP658, Carry Case for iCON Robot	●	●	●	●	●	●
GVP657, Carry Case for iCON Accessories	●	●	●	●	●	●
Documentation						
User Manual iCON build	●	●	●	●	●	●
Quick Guide iCON robot 60	●	●	●	●	●	●
Quick Guide iCON CC65/66				●	●	●
Leica USB-Card-Folder A5 iCON	●	●	●	●	●	●

● Standard

2.3 iCR60 Packages with iCON site

	iCON robot 60 & iCON site					
	1" CC55 LRBT	2" CC55 LRBT	5" CC55 LRBT	1" CC66 LRBT	2" CC66 LRBT	5" CC66 LRBT
	6006801	6006800	6006799	6006804	6006803	6006802
Sensors						
iCR61, iCON robot 61 Total Station 1"	●			●		
iCR62, iCON robot 62 Total Station 2"		●			●	
iCR65, iCON robot 65 Total Station 5"			●			●
CC55, Rugged 3.5" Controller, WEH6.5	●	●	●			
CCD3, long-range BT Cap for CC50	●	●	●			
CC66, Rugged 7" Tablet PC, Win7 w/ LR BT				●	●	●
Software						
CSW102, iCON site	●	●	●			
CSW202, iCON site				●	●	●
CSW605, PowerSearch for iCR60	●	●	●	●	●	●
CSW606, Reflectorless for iCR60	●	●	●	●	●	●
CSW608, iCON app "MC" for iCR80	●	●	●	●	●	●
Accessories						
GDF323, Tribrach PRO w/o plummet, black	●	●	●	●	●	●
GST120-9, Wooden tripod, telescopic	●	●	●	●	●	●
2x GEB222, Li-Ion battery, 7.4V/6Ah, chargeable	●	●	●	●	●	●
GKL211, Charger Li-Ion+User Manual	●	●	●	●	●	●
CCD2, LR-BT CommunicationHandle, black	●	●	●	●	●	●
MSD1000, industrial grade SD memory card 1 GB.	●	●	●	●	●	●
MS1, industrial grade USB memory stick 1 GB	●	●	●	●	●	●
GEV223, data cable USB to mini-USB, 1.8 m	●	●	●	●	●	●
MPR122, 360° Reflector PRO	●	●	●	●	●	●
CRP1, Construction Pole, telescopic	●	●	●	●	●	●
GSR115, Bi-Pod, for all GLS	●	●	●	●	●	●
CMB1, Pole Clamp for CC50	●	●	●			
CMB2, Pole/Vehicle Mount for CC60/61				●	●	●
CMB5, Pole Clamp for CMB2				●	●	●
GVP658, Carry Case for iCON Robot	●	●	●	●	●	●
GVP657, Carry Case for iCON Accessories	●	●	●	●	●	●

	iCON robot 60 & iCON site					
	1" CC55 LRBT	2" CC55 LRBT	5" CC55 LRBT	1" CC66 LRBT	2" CC66 LRBT	5" CC66 LRBT
Documentation						
User Manual iCON site	●	●	●	●	●	●
Quick Guide iCON robot 60	●	●	●	●	●	●
Quick Guide iCON CC65/66				●	●	●
Leica USB-Card-Folder A5 iCON	●	●	●	●	●	●

● Standard

2.4 iCR60 Kits for Machine Control

	Machine Control Kits		
	1"	2"	5"
	6009000	6008999	6008998
Sensors			
iCR61, iCON robot 61 Total Station 1"	●		
iCR62, iCON robot 62 Total Station 2"		●	
iCR65, iCON robot 65 Total Station 5"			●
Software			
CSW613, iCR60 iCONstruct MC kit *1	●	●	●
Accessories			
GDF323, Tribrach PRO w/o plummet, black	●	●	●
2x GEB222, Li-Ion battery, 7.4V/6Ah, chargeable	●	●	●
GKL211, Charger Li-Ion+User Manual	●	●	●
MSD1000, industrial grade SD memory card 1 GB.	●	●	●
MS1, industrial grade USB memory stick 1 GB	●	●	●
GVP658, Carry Case for iCON Robot	●	●	●
Documentation			
Quick Guide iCON robot 60	●	●	●
Leica USB-Card-Folder A5 iCON	●	●	●

● Standard

*1 CSW613, iCR60 iCONstruct MC kit includes Communication and Instrument Settings, Field Calibration, Data Management, Setup, Measure app, Machine Control app, Power Search, Setup Pilot, Target Snap, Cube Search.

These are recommended default configurations.

iCON robot 60 & iCONstruct Field Software CCPs have to ordered as part of the packages.

For more accessories and options, please refer to chapters 5, 6 and "Accessories for Total Station".

3 iCON builder 60

3.1 Models

	iCB62 / iCB65 / iCB69
Angle measurement	●
Distance measurement to prism	●
Distance measurement to any surface (reflectorless)	●
RS232, SD-Card and USB memory stick interface	●
Internal Bluetooth	●
Guide Light (EGL)	●
Laser plummet	●
3.5" colour & touch screen	●
Alphanumeric keyboard	●
iCONstruct start kit on-board software *1	●

● Standard

*1 iCB60 iCONstruct start kit includes Communication and Instrument Settings, Field Calibration, Data Management, Setup, As-Build app, Layout Points app.

☞ iCB60 instruments can only be ordered as part of a predefined default package. Please refer to the chapters 3.2 for further details.

3.2 iCB60 Packages with iCON build

	iCON builder 60		
	2"	5"	9"
	6008666	6008668	6008669
Sensors			
iCB62, iCON builder 62 Total Station 2"	●		
iCB65, iCON builder 65 Total Station 5"		●	
iCB69, iCON builder 69 Total Station 9"			●
Software			
CSW403, Reflectorless for iCB60	●	●	●
Accessories			
GDF323 Tribrach PRO w/o plummet, black	●	●	●
GEB222, Li-Ion battery, 7.4V/6Ah, chargeable	●	●	●
GEB212, Li-Ion battery, 7.4V/2.6Ah, chargeable	●	●	●
GKL211, Charger Li-Ion+User Manual	●	●	●
MSD1000, industrial grade SD memory card 1 GB.	●	●	●
MS1, industrial grade USB memory stick 1 GB	●	●	●
GEV223, data cable USB to mini-USB, 1.8 m	●	●	●
CPR111, BUILDER prism, true-zero offset, incl. bubble	●	●	●
GLS115, Mini reflector pole set	●	●	●
GVP715, Carry Case for iCON builder	●	●	●
Documentation			
User Manual iCON build	●	●	●
Quick Guide iCON builder 60	●	●	●
Leica USB-Card-Folder A5 iCON	●	●	●

● Standard

☞ These are recommended default configurations.

☞ For more accessories and options, please refer to chapters 7 and "Accessories for Total Station".

Additional Total Station Options

4 iCON robot 50 Options

792 696	**CSW600**	PowerSearch option for iCR50
792 697	**CSW601**	Reflectorless option for iCR50
792 704	**CSW604**	MC license for iCR50

5 iCON robot 60 and iCON builder 60 Options

817 545	**CSW610**	iCON build for iCB60/iCR60
817 549	**CSW614**	iCON build plus for iCB60/iCR60
817 551	**CSW616**	iCON app "Sketch" for iCB60/iCR60
817 552	**CSW617**	iCON app "Volumes" for iCB60/iCR60
817 553	**CSW618**	iCON app "Stakeout" for iCB60/iCR60
817 557	**CSW622**	iCON app "Lines" for iCB60/iCR60
817 558	**CSW623**	iCON app "Cut & Fill" for iCB60/iCR60
817 560	**CSW625**	iCON app "Roading" for iCB60/iCR60
817 561	**CSW626**	iCON app "Slopes" for iCB60/iCR60
817 562	**CSW627**	iCON app "Checks" for iCB60/iCR60
820 819	**CSW633**	MC Calibration for iCB60/iCR60

6 iCON robot 60 only Options

793 070	**CSW605**	PowerSearch for iCR60
793 072	**CSW606**	Reflectorless 1000m for iCR60
793 074	**CSW608**	iCON app "MC" for iCR60
817 546	**CSW611**	iCON site for iCR60
817 548	**CSW613**	iCR60 iCONstruct MC Kit
817 550	**CSW615**	iCON site plus for iCR60
817 554	**CSW619**	iCON app "Control Line" for iCR60
817 559	**CSW624**	iCON app "Setup" for iCR60
817 563	**CSW628**	Setup Pilot for iCR60
817 564	**CSW629**	Target Snap for iCR60
817 565	**CSW630**	Cube Search for iCR60
817 566	**CSW631**	ATACK for iCR60

7 iCON builder 60 only Options

820 821	**CSW403**	Reflectorless 500m for iCB60

Accessories for Total Station

8 Communication Handles

790 050	**CCD1**	WLAN Communication Handle, black.
790 051	**CCD2**	Long-range Bluetooth Communication Handle, black.

9 Power Supply

9.1 Internal Batteries

733 270	**GEB221**	Lithium-Ion battery, 7.4V/4.4Ah, chargeable.
793 973	**GEB222**	Lithium-Ion battery, 7.4V/6.0Ah, chargeable.
772 806	**GEB212**	Lithium-Ion battery, 7.4V/2.6Ah, chargeable.

9.2 External Batteries

727 367	**GEB171**	External universal battery, NiMH, 12V/9Ah, rechargeable.
749 279	**GEV208**	External power supply unit. To connect iCR50 instruments to mains power (220V to 12V). ☞ Requires a GEV52 or GEV187 cable.

9.3 Battery Cables

439 038	**GEV71**	Car battery cable 4m, to connect 12V car battery.
409 678	**GEV52**	Cable, connects iCR50 to external battery.
734 697	**GEV186**	Y-cable, connects iCR50 to TCPS28 and external battery.
734 698	**GEV187**	Y-cable, connects iCR50 to PC (9-pin RS232 serial) and external battery, 2m.
707 525	**GK1**	Lemo Canon converter 30°, for PC (Lemo to RS232) to be used with GEV186 cable.

9.4 Battery Chargers

733 271	**GKL221**	Charger, to be used with up to two charging adapters GDI221 or GDI222, charger cable and net adapter included.
733 323	**GDI221**	Adapter for GKL221 for charging 2 Li-Ion batteries GEB241, GEB221, GEB211 or GEB212.
734 389	**GDC221**	Car adapter for the GKL221 charger. Allows the use of the GKL221 with a cigarette lighter; 12V/24V DC/DC converter. Can also be used to power CS10/CS15 field controller directly from a cigarette lighter.
734 752	**GKL211**	Charger, for Li-Ion batteries GEB221, GEB211 and GEB212, car adapter cable and net adapter included.

10 Data Storage and Data Transfer

10.1 Memory Devices

733 257	**MCF256**	CompactFlash card 256 MB.
745 995	**MCF1000**	CompactFlash card 1 GB.
767 856	**MSD1000**	Industrial grade SD memory card 1 GB.
789 139	**MSD08**	Industrial grade SD memory card 8 GB.
765 199	**MS1**	Industrial grade USB memory stick 1 GB.

10.2 Card Reader

767 895	**MCR7**	Card reader for SD/CF cards.
733 258	**MCFAD1**	CompactFlash PC card adapter.

10.3 Data Transfer Cables

563 625	**GEV102**	Data transfer cable, connects Total Station to PC (9-pin RS232 serial), 2m.
734 697	**GEV186**	Y-cable, connects Total Station to TCPS28 and external battery.
734 698	**GEV187**	Y-cable, connects Total Station to PC (9-pin RS232 serial) and external battery, 2m.
806 093	**GEV267**	2.0m serial data transfer cable, converter cable USB to serial (Lemo to USB connector).
764 700	**GEV223**	Data cable USB to mini-USB, 1.8m.
707 525	**GK1**	Lemo Canon converter 30°, for PC (Lemo to RS232) to be used with GEV186 cable.

11 Optical Accessories

11.1 Eyepiece

377 802	**FOK53**	Magnification eyepiece, additional eyepiece for increasing telescope magnification to 42x. ☞ Modification in a workshop necessary.
308 838	**FOK53**	Magnification eyepiece, additional eyepiece for increasing telescope magnification to 42x. ☞ Modification ex factory. Can only be ordered with a new instrument.
734 514	**GFZ3**	Diagonal eyepiece for telescope.
376 236	**GOK6**	Eyepiece for steep sights, with joint allowing variable sighting angle.

11.2 Autocollimation Set

199 899	**GOA2**	Autocollimation eyepiece.
394 787	**GEB62**	Plug-in lamp, with cable for autocollimation eyepiece.
394 792	**GEB63**	Battery box for autocollimation eyepiece and eyepiece lamp.

11.3 Objective

743 504	**GVO13**	Objective solar filter for TPS instruments.

12 Instrument Height Meter

667 718	**GHM007**	Instrument height meter.
722 045	**GHT196**	Distance holder for height meter.

13 Tribrachs

777 970	**GDF323**	Tribrach PRO w/o plummet, black.
783 100	**GUS85**	Tribrach shiftable, black.

14 Tripods

296 632	**GST20**	Tripod, telescopic, with accessories (plumb bob, carrying strap and side clamp screws), with pouch.
394 752	**GST20-9**	Tripod, telescopic, with accessories.
667 301	**GST120-9**	Tripod, telescopic, selfclosing, with accessories.
332 200	**GST4**	Tripod-star, for setting up tripods on hard and slippery surfaces.

15 Reflector Poles

15.1 Standard Poles

794 336	**CRP1**	Construction Pole, telescopic, cm-graduation, for MPR122 or GNSS antenna, upside-down use incl. plate. Carbon and aluminium, 2x 5/8" screws, 2x circular bubble, extendable.
795 054	**CRP2**	Construction Pole, telescopic, ft-graduation, for MPR122 or GNSS antenna, upside-down use incl. plate. Carbon and aluminium, 2x 5/8" screws, 2x circular bubble, extendable.
796 130	**CRP3**	Construction Pole, telescopic, ft-decimal graduation, for MPR122 or GNSS antenna, upside-down use incl. plate. Carbon and aluminium, 2x 5/8" screws, 2x circular bubble, extendable.
806 685	**CRP10**	Construction Pole Tip, cm.
806 687	**CRP11**	Construction Pole Plate, cm.
817 344	**CRP12**	Centre punch tip for all CRP poles. Hard metal tip works for example on concrete, metal, wood.
817 345	**CRP13**	Adapter for fixing CRP10, CRP11, CRP12 to CRP2 or CRP3.
820 845	**CRP14**	Handle with circular bubble, fits all CRP poles or MPR/GZR122 prisms with 5/8" thread.
754 391	**GLS12**	Reflector pole, telescopic to 2.00m with circular bubble, cm graduations.
754 389	**GLS12F**	Reflector pole, telescopic to 2.00m with circular bubble, ft graduations.
667 222	**GLS18**	Pole extension 1m, aluminium, 5/8" thread on both sides.
667 309	**GLS111**	Reflector pole, with bull's-eye bubble, cm/ft graduation, extends to 2.60m, with red/white 0.20m graduations.

15.2 Hidden Point Pole

742 329	**GMP112**	Hidden Point pole extension for GMP111 (mini prism pole set). Includes mini prism with holder and 30cm adapter pole.

15.3 Mini Pole

403 427	**GLS14**	Mini reflector pole, (prism/target 20cm over point), with circular bubble.
642 106	**GLS115**	Mini reflector pole, four screw-together sections, extends to 1.30m, for GMP111/CPR105.
747 895	**GLI115**	Clip-on bubble for GLS115.

15.4 Bi-pods

774 612	**GSR115**	Bi-Pod, for all GLS.

16 Reflectors

16.1 Circular Reflectors

362 830	**GPR1**	Circular prism, in black housing.
641 618	**GPR111**	Circular prism, with holder and target plate.
753 492	**GPR113**	Circular prism, with red holder.
641 617	**GPR121**	Circular prism, with metal holder and target plate.
362 820	**GPH1**	Single-prism holder.
400 080	**GPH3**	Three-prism holder.
362 823	**GZT4**	Target plate, for GPH1.

16.2 360° Reflectors

756 637	**MPR122**	360° Reflector PRO
667 217	**GAD31**	Screw to stub adapter.
644 327	**GRZ101**	360° mini prism with 1/4" thread fitting. Not supported by PowerSearch.
742 006	**GAD103**	Adapter for attaching GRZ101 to all poles with Leica Geosystems stub.
754 384	**GRZ122**	360° Reflector.
639 985	**GRZ4**	360° Reflector.

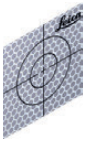
16.3 Precision Reflectors

555 631	**GPH1P**	Single-prism precision reflector.

16.4 Mini Reflectors

761 712	**CPR111**	BUILDER prism, true-zero offset, incl. Bubble.
641 662	**GMP101**	Mini prism, incl. bubble, target plate and spike, in bag, also suitable for GLS11/GLS12 and GRT144 (same height as GPH1, additive constant +17.5mm).
641 762	**GMP104**	Mini prism, with L-bar, for fixed installations.
641 615	**GMP111**	Mini prism, incl. bubble, with GLS115 pole set.
642 534	**GMP111-0**	Mini prism 0-constant, incl. bubble, with GLS115 pole set.
743 503	**GAD105**	Adapter for GMP111 to all poles with Leica Geosystems stub.

16.5 Reflector Tapes



763 532	**GZM29**	Reflective tape, 20x20mm for short range, pack of 20 pieces.
763 533	**GZM30**	Reflective tape, 40x40mm for medium range, pack of 20 pieces.
763 534	**GZM31**	Reflective tape, 60x60mm for long range, pack of 20 pieces.

17 Additional Containers

790 125	**GVP658**	Carry Case for iCON Robot.
790 052	**GVP657**	Carry Case for iCON Accessories.
817 342	**GVP715**	Carry Case for iCON builder.

Remote Control

18 Remote Control

18.1 CC55 & CC65/66 Field Controller

817 340	**CC55 Field Controller**	Ruggedized Windows Embedded handheld 6.5 controller with 3.5" touch screen with 600 nits QuadraClear™ sunlight readable display, 1 GHz processor, 256 MB NAND Flash Memory, 512 MB MDDR, 8 GB extended storage, internal WiFi module, Bluetooth, numeric keypad, 2 stylus, long-range Bluetooth ready, Altimeter, e-compass, SiRFstar IV GPS, AC/DC adaptor, 5.6 Ah Battery, USB cable, protection film, hand strap and 5 MP camera.

818 193	**CC65 Tablet PC**	Ruggedized Win7 (Ultimate Edition) Tablet Computer with 7" touch-widescreen, Intel Atom™ N2600 1.6 GHz Dual Core, 128 GB SSD hard drive, 4 GB SDRAM, WLAN 802.11 b/g/n, integrated EDGE/HSPDA/GSM/UMTS/CDMA module, Bluetooth v2.1/v4.0, integrated ublox GPS, 2 batteries (5.2Ah each), stylus, AC/DC adaptor and 5 MP camera with flash.
818 194	**CC66 Tablet PC**	Ruggedized Win7 (Ultimate Edition) Tablet Computer with 7" touch-widescreen, Intel Atom™ N2600 1.6 GHz Dual Core, 128 GB SSD hard drive, 4 GB SDRAM, WLAN 802.11 b/g/n, integrated EDGE/HSPDA/GSM/UMTS/CDMA module, integrated long-range Bluetooth, integrated ublox GPS, 2 batteries (5.2Ah each), stylus, AC/DC adaptor and 5 MP camera with flash. Long-range Bluetooth optimized for robotic Total Station communication.

18.2 CC5x Communication Cap

790 047	**CCD3**	Long-range Bluetooth Cap for CC5x.

18.3 Remote Control Packages with iCON Software

	iCON build				iCON site		
	CC55 WLAN	**CC55 LRBT**	**CC65 WLAN**	**CC66 LRBT**	**CC55 LRBT**	**CC65 WLAN**	**CC66 LRBT**
	6006691	6006692	6006693	6006694	6006695	6009098	6009099
Sensors							
CC55, Rugged 3.5" Controller, WEH6.5	●	●			●		
CCD3, long-range BT Cap for CC5x		●			●		
CC65, Rugged 7" Tablet PC, Win7			●			●	
CC66, Rugged 7" Tablet PC, Win7 w/ LR BT				●			●
Software							
CSW101, iCON build	●	●					
CSW201, iCON build			●	●			
CSW102, iCON site					●		
CSW202, iCON site						●	●
Accessories							
MS1, industrial grade USB memory stick 1 GB	●	●	●	●	●	●	●
Documentation							
User Manual iCON build	●	●	●	●			
User Manual iCON site					●	●	●
Quick Guide iCON CC65/66			●	●		●	●
Leica iCONstruct USB-Card	●	●	●	●	●	●	●

iCONstruct Field Software CCPs have to be ordered as part of the packages

19 iCONstruct Field Software and Applications

19.1 iCON build

For CC55 iCON Controller		
793 112	**CSW101**	iCON build
Optional applications for iCON build on CC55 iCON Controller		
793 115	**CSW104**	iCON app "Volumes"
793 118	**CSW107**	iCON app "Stakeout"
793 122	**CSW109**	iCON app "Cut & Fill"
793 136	**CSW120**	iCON app "Slopes"
793 129	**CSW114**	iCON app "MC Calibration". Supports Excavator & Wheel Loader calibration.
793 132	**CSW116**	Extension iCON build plus. Includes: iCON apps "Volumes", "Stakeout", "Cut & Fill", "MC Calibration" and "Slopes".
For CC60/CC61 iCON Controller		
793 853	**CSW201**	iCON build
Optional applications for iCON build on CC60/CC61 iCON Controller		
793 855	**CSW204**	iCON app "Volumes"
793 850	**CSW207**	iCON app "Stakeout"
793 849	**CSW209**	iCON app "Cut & Fill"
793 844	**CSW213**	iCON app "Roading"
793 156	**CSW220**	iCON app "Slopes"
793 843	**CSW214**	iCON app "MC Calibration". Supports Excavator & Wheel Loader calibration.
793 841	**CSW216**	Extension iCON build plus. Includes: iCON apps "Volumes", "Stakeout", "Cut & Fill", "MC Calibration" and "Slopes".
818 727	**CSW234**	iCONstruct Telematics 1 Year License. Enables iCON Telematics View, Sync and Track for iCONstruct field.
818 728	**CSW235**	iCONstruct Telematics 2 Years License. Enables iCON Telematics View, Sync and Track for iCONstruct field.
818 729	**CSW236**	iCONstruct Telematics 3 Years License. Enables iCON Telematics View, Sync and Track for iCONstruct field.
818 730	**CSW237**	iCONstruct Telematics 1 Day License. Enables iCON Telematics View, Sync and Track for iCONstruct field.

19.2 iCON site

For CC55 iCON Controller		
793 113	**CSW102**	iCON site
821 265	**CSW123**	iCON site entry
Optional applications for iCON site on CC55 iCON Controller		
793 114	**CSW103**	iCON app "Sketch"
793 116	**CSW105**	iCON app "Control Line"
793 120	**CSW108**	iCON app "Layout Lines"
793 136	**CSW120**	iCON app "Slopes"
793 129	**CSW114**	iCON app "MC Calibration". Supports Excavator & Wheel Loader calibration.
821 267	**CSW124**	iCON site entry upgrade to iCON site
793 131	**CSW115**	Extension iCON site plus. Includes: iCON apps "Sketch", "Control Line", "Layout Lines" and "Checks".
For CC60/CC61 iCON Controller		
793 852	**CSW202**	iCON site
821 268	**CSW240**	iCON site entry
Optional applications for iCON site on CC60/CC61 iCON Controller		
793 857	**CSW203**	iCON app "Sketch"
793 859	**CSW205**	iCON app "Control Line"
793 851	**CSW208**	iCON app "Layout Lines"
793 844	**CSW213**	iCON app "Roading"
793 156	**CSW220**	iCON app "Slopes"
793 843	**CSW214**	iCON app "MC Calibration". Supports Excavator & Wheel Loader calibration.
821 269	**CSW241**	iCON site entry upgrade to iCON site
793 842	**CSW215**	Extension iCON site plus. Includes: iCON apps "Sketch", "Control Line", "Layout Lines" and "Checks".
818 727	**CSW234**	iCONstruct Telematics 1 Year License. Enables iCON Telematics View, Sync and Track for iCONstruct field.
818 728	**CSW235**	iCONstruct Telematics 2 Years License. Enables iCON Telematics View, Sync and Track for iCONstruct field.
818 729	**CSW236**	iCONstruct Telematics 3 Years License. Enables iCON Telematics View, Sync and Track for iCONstruct field.
818 730	**CSW237**	iCONstruct Telematics 1 Day License. Enables iCON Telematics View, Sync and Track for iCONstruct field.

19.3 Applications included in iCONstruct Field Software

	iCON build	iCON site entry	iCON site
General:			
• Graphical selection of point from map	●	●	●
• Graphical navigation to point	●	●	●
• StatusBar+ with shortcuts	●	●	●
• MaxMap with button transparency	●	●	●
• Map OPS+ with intelligent map controls	●	●	●
• IntuiNav+ with traffic light quality checks	●	●	●
• Sound notification on point storing	●	●	●
• Selection of pre-set pole height	●	●	●
• 3D View	●	●	●
Sketching includes:			
• Point Pilot quick point creation	●	-	-
• Close figure	●	-	-
• Radius Point & long/short radius	●	-	-
• Point Projection	●	-	-
• Point & Line calculations	●	●	●
• Arc calculations	●	●	●
• Offset calculations	●	●	●
• Point Computation (intersections, ...)	●	●	●
• Patterns	●	-	-
• Trace	●	-	-
As-Built / Measure / Data Collection includes:			
• Data Collection	●	●	●
• Coding	●	●	●
• Auto points logging	●	●	●
• Target Shift calculations	●	●	●
• Auto line drawing	●	●	●
• Auto arc creation	●	●	●
Layout Points includes:			
• Graphical layout guidance	●	-	-
• In-map line/offset data	●	-	-
• Two tape layout	●	-	-
• Layout based on reference line	●	-	-
• Guiding telescope line	●	-	-
Checks includes verification of:			
• Distance (horizontal, vertical, sloped)	●	-	-
• Slope (degree, percent, ratio)	●	-	-
• Area	●	-	-
• Perimeter	●	-	-
• Block volume	●	-	-
• Included angle & azimuth	●	-	-
Layout Lines includes:			
• Start/end line flag	●	-	-
• Flip line	●	-	-
• Parallels & perpendiculars	●	-	-
• Create lines with 2 points	●	-	-
• Create arc (3 points or 2 points + radius)	●	-	-
• Line/arc offsets	●	-	-
• Graphical infinite line support	●	-	-
Stakeout includes:			
• Graphical navigation to point	-	●	●
• Graphical navigation to lines	-	●	●
• Create & edit points	-	●	●
• Create polylines & arcs	-	●	●
• 3D offset	-	●	●
• Define chainage	-	●	●
• Add reference line to stakeout point	-	●	●
• Flip Line (Start and End Point)	-	●	●
• Create points & lines with bearing and distance	-	●	●
• Divide lines	-	●	●
• Automatic selection of next point (Nearest Distance, Next Point from List, Nearest from List)	-	●	●

	iCON build	iCON site entry	iCON site
Cut & Fill includes:			
• Cross-section view	-	-	●
• Set orientation according to direction of travel and fixed direction	-	-	●
• Cut/Fill view with large deviation values and colour coded	-	-	●
• Get cut/fill values to a defined elevation (e.g. type in elevation, balanced site elevation from terrain model)	-	-	●
• Define vertical offset	-	-	●
• Colour indication of Cut vs. Fill, same as Machine Control	-	-	●
• Graphical coloured visualisation of cut/fill areas	-	-	●
• Several terrain models usable in parallel	-	-	●
• Select reference line as visual guidance	-	-	●
Volumes includes:			
• Create surfaces in the field	-	-	●
• Edit surfaces in the field	-	-	●
• Stockpile calculation	-	-	●
• Various volume calculations (to point, to elevation, to 2nd surface)	-	-	●
• Apply compaction factor	-	-	●
• Create brakelines for surface	-	-	●
Slopes includes:			
• Create slopes on the fly	-	-	●
• Display either as ratio, percent or degree	-	-	●
• Graphical "cross-section" view	-	-	●
• Support of vertical & horizontal "slopes"	-	-	●
• Determination of daylight line	-	-	●
Point List includes:			
• List view of points of active jobs	●	-	●
• Search for points via ID, Code or elevation	●	-	●
• Search for range	●	-	●
• Define task lists	●	-	●
• Edit, sort, create points	●	-	●
Setup inlcudes:			
• Control line setup	●	-	-
• Setup anywhere	●	●	●
• Setup over known point	●	●	●
• Set orientation	-	●	●
• Height Transfer	●	-	-
• Over height benchmark	●	●	●
• Get station coordinates from map, from GPS or enter manually	●	●	●
• Setup Pilot (fully automatic free-station)	●	●	●
Coordinate system:			
• Small area, large area, 3D transformation	●	●	●
• All common projections	●	●	●
• View Scale factor and set Scale factor to 1.0	●	●	●
• GNSS Height Transfer	●	●	●
MC Calibration:			
• Unified way to calibrate an excavator	-	-	●
• Unified way to calibrate a wheel loader	-	-	●
• View calibration values for transfer to Machine Control software	-	-	●
Others:			
• User Levels	-	●	●
• Multiview	-	●	●
• Custom measure bar	●	●	●
• Custom info panel	-	●	●
• Favourites	-	●	●
• Setup within applications	●	-	-
• "Save as ... " function. User defined names	-	●	●

	iCON build	iCON site entry	iCON site
Data import: ASCII, DXF, HeXML	●	●	●
Data export: Custom ASCII (e.g. CSV, TXT), DXF, GSI, GEO, HeXML	●	●	●

● All options and functionality available

- Not available

19.4 Optional Applications (not part of iCON site or iCON build)

Roading includes:

- Support of alignment and stringlines files
- Import HeXML stringline data from 3rd party CAD and design packages
- Use same data on the machine and in the field
- Stakeout via cross-section view
- Hold-Slope function
- Stakeout at defined chainage / stationing with cross section
- Layer selection for staking out
- Create cross-sections within a defined range
- Create corridor for Road model

Telematics includes:

- View and control screen remotely
- Sync: Transfer data from and to the Office and Field
- Track current location remotely

19.5 Applications and Functions included in iCON build plus / iCON site plus

	iCON build plus	iCON site entry upgrade	iCON site plus
Applications:			
• iCON app "Volumes"	●	●	-
• iCON app "Stakeout" (Points & Polylines)	●	●	-
• iCON app "Cut&Fill"	●	●	-
• iCON app "Slopes"	●	●	-
• iCON app "Checks"	-	-	●
• iCON app "Sketch" (full)	-	-	●
• iCON app "Control Line"	-	-	●
• iCON app "Layout Lines" (Parallels & Perpendiculars)	-	-	●
• iCON app "Checks"	-	-	●
• iCON app "MC Calibration"	●	●	-
• iCON app "Slopes"	●	●	-
Functionality:			
• Custom info panel	●	-	-
• HotSwap Button for MC	●	-	-
• Favourites	●	-	-
• Set Orientation	●	-	-
• Station number in Setup	●	-	-
• Point Pilot	-	-	●
• Bay Windows (incl. rotate & align)	-	-	●
• Patterns (incl. rotate & align)	-	-	●
• Trace (incl. rotate & align)	-	-	●
• WLAN support	-	-	●
• Height Transfer	-	-	●

● All options and functionality available

- Not available

Accessories for Remote Control

20 Accessories for CC55 iCON Controller

20.1 HW Options for CC55 iCON Controller

790 047	**CCD3**	Long-range Bluetooth Cap for CC55.

20.2 Accessories for CC55 iCON Controller

793 159	**CCD5**	USB Stick Adaptor for CC55.
796 682	**CCD10**	RS232 DB9 Adapter
793 160	**CBA1**	Battery for CC55.
793 161	**CBC1**	Charger for separate CC55 battery.
793 162	**CBC2**	Vehicle Charger for CC55.
793 163	**CA8**	LCD Protection UV Film for CC55.

20.3 Pole Mounts for CC55 iCON Controller

793 164	**CMB1**	Pole Clamp for CC55.

21 CC6x iCON Controller and Accessories

21.1 HW Options for CC60 iCON Controller

793 158	**CCD4**	Long-range Bluetooth Upgrade Kit for CC60.

21.2 Accessories for CC6x iCON Controller

785 413	**ALG7-08B**	Lithium Polymer battery for tablet computer e.g. CC6x, 5.2 Ah, chargeable.
785 414	**HH-12V**	DC-12V Car charger for tablet computer e.g. CC6x. Can be used to power and charge the CC6x directly from a cigarette lighter.
785 415	**GDZ70**	Pen with screw-driver and string for CC6x.
785 416	**ALG7-10A**	Charger for Li-Polymer batteries ALG7-08B, AC/DC adapter ALG7-13A not included.
785 417	**ALG7-13A**	AC/DC-adapter EU, AUS, US and UK, for power supply CC6x and charging the plugged-in batteries ALG7-08B.
785 418	**SPF07**	Anti-glare display foils for CC6x.

21.3 Pole Mounts for CC6x iCON Controller

793 165	**CMB2**	C-shape Pole/Vehicle Mount for CC6x with ball double socket arm and ball mount.
795 492	**CMB5**	Pole Clamp for CMB2 bracket for CC6x.
784 918	**GHT72**	Pole holder and arrangement for attaching tablet computer, incl. hook for tripod mounting.

21.4 TCPS28/TCPS29 Modems

TCPS28		
772 301	**TCPS28B**	Radio modem (base) with antenna, user manual. Used as radio modem for iCR50 instruments to communicate with field controller (frequency range 2402 - 2452MHz).
772 302	**TCPS28R**	Radio modem (remote) with antenna, user manual. Used as external radio to establish radio connection with TCSP28B (frequency range 2402 - 2452MHz).
TCPS29		
788 854	**TCPS29**	Bluetooth radio modem with antenna and user manual. Used as external radio modem for TS total stations or PC. (frequency range 2402 - 2480MHz).
793 111	**TCPS29-S**	Rugged long-range Bluetooth Module with Status LEDs, Cannon ITT connector and mounting bracket.

21.5 TCPS Accessories

734 163	**GHT43**	Adapter for mounting TCPS radio module on GST20/GST120 tripod.

Care Packages

22 Customer Care Packages

A wide selection of comprehensive Customer Care Packages (CCPs) is available bundling Hardware Maintenance, Software Maintenance, Customer Support and Extended Warranty.
For more information about the CCP offering in your country please contact your local Leica Geosystems organization or distribution partner.

Trademarks & Technical Data

23 Trademarks

The *Bluetooth*® word mark and logos are owned by Bluetooth SIG, Inc. and any use of such marks by Leica Geosystems AG is under license.
SD is a trademark of the SD Card Association.
Other trademarks and trade names are those of their respective owners.

24 Technical Data

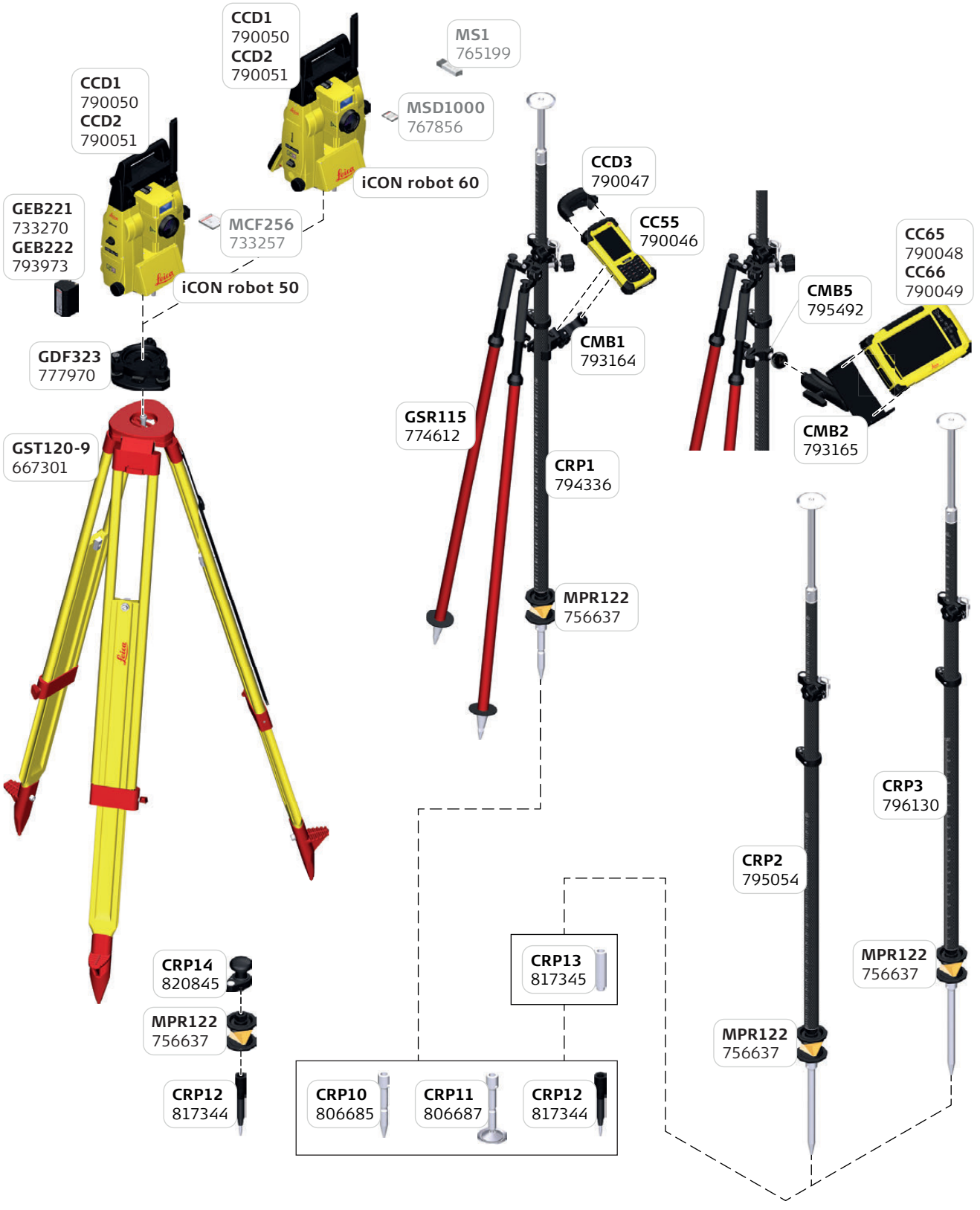
Distance meter (Prism), ATR and PowerSearch:
Laser class 1 in accordance with IEC 60825-1 resp. EN 60825-1

Laser plummet:
Laser class 2 in accordance with IEC 60825-1 resp. EN 60825-1

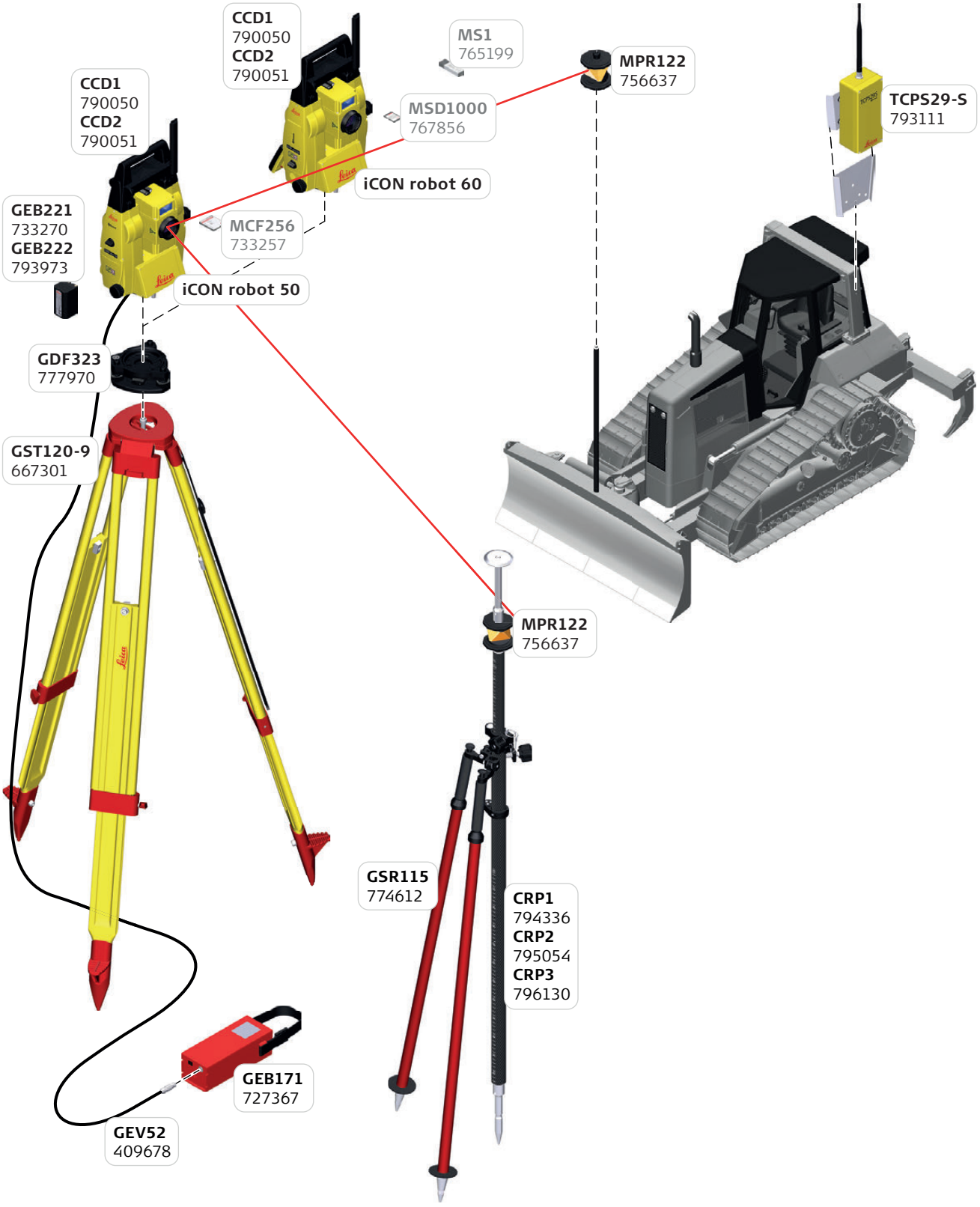
Distance meter (Non-Prism):
Laser class 3R in accordance with IEC 60825-1 resp. EN 60825-1

Suggested Equipment Setups

25 One-person robotic application



26 Machine control application



27 Two-person manual Total Station application

Leica Geosystems intelligent CONstruction.
Whether you construct buildings, roads, bridges or tunnels, you benefit from intelligent CONstruction. Leica iCON is more than a new product line or software package, it enables you to enhance your performance and increase your profitability through perfecting your construction workflow.
Understanding construction demands outstanding solutions:

- Custom-built
- Complete
- Straightforward
- High performance

When it has to be right.

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- when it has to be **right**

Leica Geosystems